

What is NUCLEONICA?

NUCLEONICA is a nuclear science web portal from the European Commission's Joint Research Centre.

Who is it for?

NUCLEONICA is aimed at professionals, academics and students in the nuclear sciences, in particular health physics and radiation protection, nuclear and radiochemistry, and astrophysics.

What can you do with NUCLEONICA?

Improve the quality of your work

Avoid the tedious task of searching for nuclear data. NUCLEONICA uses the most recently evaluated nuclear data from international datafiles.

Concentrate on the science rather than the programming!

NUCLEONICA provides you with user-friendly, reliable, and fast modules (for decay, dosimetry & shielding, range and stopping power, transport and packaging, reactor irradiation calculations, gamma-spectrum simulation etc.)

Keep informed on nuclear developments

NUCLEONICA web crawlers scan hundreds of websites on an hourly basis to bring you the latest nuclear news.

Manage all your data in a single browser-based system

The web applications are browser and operating system independent and can be accessed with Internet Explorer, Mozilla-based browsers (Mozilla, Firefox, Netscape) and a variety of other browsers such as Opera, Safari, etc.

Provides the opportunity to introduce and share your expertise

with the NucleonicaWiki – a collaborative authoring tool in nuclear science

Need to prepare a lecture or a training course?

NUCLEONICA is an ideal source of information, articles, weblinks, graphics, tables etc. Nucleonica will assist you in preparing training courses by providing an e-learning platform for education and training in the nuclear sciences.

About the 1st Advanced Training Course

The course is aimed at persons who provide technical support (measurements, interpreting results, drawing conclusions, making recommendations) for the actions in response to illicit trafficking incidents and radiological events. Previous practical experience with Nucleonica would be an advantage. The course is suitable, for example, for physicists, radio-chemists, health physicists, technical experts from national law enforcement agencies and regulatory authorities, who may be involved in the assessment of such events. Completion of this course will enhance and support nuclear related decision-making as well as provide formal academic principles in nuclear science. Course requirements are a basic knowledge on physics and chemistry.

What makes this course unique is the emphasis on interactive and hands-on learning through the use of Nucleonica - a suite of powerful and versatile web-based applications for calculations on radio-nuclides and their radiation. With examples, exercises and dedicated case studies, a whole variety of core and topical issues in nuclear science and technology will be presented by experts in their respective fields.

The course will be held in English.

How you will benefit from this course

In this course you will:

- Consult with experts in the field
- Develop a thorough understanding of the basic nuclear concepts
- Receive direct hands-on experience with the NUCLEONICA web-based applications

Programme and Topics

Core Topics

- Nucleonica Application Basics
- Illicit Trafficking
- Consequence Management
- Case Studies with Nucleonica

these topics will be covered by the Nucleonica team and ITU staff: J. Magill, A. Berlizov, R. Dreher, J. Galy, E. Hrncsek, K. Mayer, C. Normand, M. Wallenius

Invited Speakers

- Reza Abedin-Zadeh (IAEA)
- Emily Alice Kröger (German Federal Office for Radiation Protection, BfS)
- Paolo Peerani (JRC-IPSC)
- Mustafa Tufan (University Samsun)

Date and Place

The **1st Advanced Training Course on Illicit Trafficking and Consequence Management with NUCLEONICA** will take place at the Institute for Transuranium Elements (ITU) in Karlsruhe, Germany, from the 22nd to 24th April 2009.

The training course is organized by:

**European Commission, Joint Research Centre,
Institute for Transuranium Elements (ITU),
Germany**

Application

Only a limited number of applications can be accepted. The application form can be downloaded from the training course webpage at:

http://www.nucleonica.net:81/wiki/index.php/Help:Training_Course_Announcements

Please send us the filled-out application form by end of February 2009 latest.

Costs and Accommodation

The course fee, including lunches, coffee breaks, the banquet and teaching material, will be 75 € (to be paid at ITU). Lodging will be at the Hotel Kübler (www.HOTEL-KUEBLER.de) in Karlsruhe which can be easily reached by public transport. Accommodation will be 86,00 € for a single room or 57,50 € for a double room per night per person, including breakfast.

Participants from Candidate Countries, Potential Candidate Countries, and European Neighbourhood Partner Countries

As part of its "Enlargement and Associated Initiatives" activity, the European Commission will sponsor participants from Candidate Countries (Turkey, Croatia, the former Republic of Macedonia), Potential Candidate Countries (Serbia, Montenegro, Albania and Bosnia-Herzegovina) as well as European Neighbourhood Partner (ENP) Countries. The ENP covers Algeria, Armenia, Azerbaijan, Belarus, Egypt, Georgia, Israel, Jordan, Lebanon, Libya, Republic of Moldova, Morocco, the Palestinian Authority, Syria, Tunisia and Ukraine.

For such participants there is a budget available to cover travel and hotel costs. Further details can be obtained from the course secretary.

Contact details

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Organising Committee

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Raymond Dreher	ITU, Germany
Andriy Berlizov	ITU, Germany



1st Advanced Training Course on Illicit Trafficking and Consequence Management with NUCLEONICA



22-24 April 2009

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